

Serial No. 10/025,156
Art Unit 1762

Amendment C

Remarks:

Responsive to the telephone interview with Examiner Parker of July 14, 2003, in connection with the RCE filed on June 13, 2003, and in connection with the above- referenced application, Applicant respectfully requests reconsideration, reexamination and allowance of claims 1-6 and 8-21 in view of the following amendments and remarks.

First, Applicant would like to thank Examiner Parker for his kind consideration and time during the telephone interview of July 14, 2003, during which applicant pointed out his position vis-a-vis the distinctions between the invention as (amended and as) claimed and the Leach reference.

The present invention is, in its most rudimentary form, directed to a method for powder coating a plastic injection molded article. Such a method is used to, for example, coat plastic door handles for automotive use. The method includes the steps of preheating the article to a preheating temperature that is below a curing temperature (as more fully discussed below) and substantially completely degassing the article.

The preheated and degassed article is then coated with a polymeric powder coating. The polymeric powder coating has a cross-linking temperature that is above the preheating temperature. Nevertheless, applying the powder coating material to the article at this temperature tends to soften the material to enhance adherence of the powder coating to the preheated and degassed article.

The coated article is then heated at a curing temperature. The curing temperature is higher than the preheating temperature and is at least 375°F. Further, this curing temperature is between the powder coating cross-linking temperature and the melting point temperature of the article. The method produces a coated and cured, degassed plastic injection molded article. In an alternate, more restrictive and narrower form, the method includes a second cured coating over the first cured coating.

It has been found that the when carried out within the recited (and required) parameters, the present method produces a coated plastic part that exhibits an extremely high level of

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assurance against bubbling and "orange-peeling".

The Examiner relies on Leach, U.S. Patent No. 5,338,578 as the primary reference for rejecting the present claims. Without belaboring exactly what Leach does (and does not) teach, Applicant's previous arguments focused on an interpretation of Leach teaching that the article to be coated is preheated to a temperature that is above the cross-linking temperature of the coating material and then applying the coating material. Examiner Parker has taken the position that at Leach teaches that the material must melt and flow out on the article and thus the temperature at which the material is applied must be below the cross-linking temperature (otherwise the material would not flow, but would only cross-link or cure following application).

Although the Examiner's position is clearly a tenable one, it is applicant's position that a study of the temperature ranges and how these ranges are "labeled" shows that applicant's interpretation of Leach is more fully supported by the temperatures of these ranges. More specifically, Applicant submits that Leach teaches heating the article to a temperature above the curing temperature before applying the coating material.

First, Leach provides that the article is heated prior to application of the coating material to a temperature of "from about 250° to about 350°, and preferably from about 260° to about 340°, more preferably from about 270° to about 330° and most preferably from about 300° to about 330°F (150° to 170°C)." Leach, Col. 5, lines 32-35. Then, Leach goes on to state that "[t]he curing times and temperatures will vary somewhat depending on the powder coating composition. Typically the curing temperatures will be at least 250°F. (121°C.), usually 250°F. (121°C.) to 375°F. (191°C.), and preferably 300°F. (149°C.) to 375°F. (191°C.) for at least 15 minutes, usually from 15 minutes to 1 hour." Leach, Col. 5, line 64 through Col. 6, line 2.

It is readily seen that these ranges overlap to a significant extent. That is, Leach teaches that the article is preheated (in the largest of the ranges) to a temperature of about 250°F to about 350°, but also provides a curing temperature range of 250°F to 375°F. This complete overlap (except for the upper 25°F of the curing range) of the ranges shows that there is no lower part of the preheating range that isn't somehow within the curing temperature range. Thus, according to

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Leach, the preheating temperature range cannot be less than the curing temperature range.

Applicant's position is that this overlap of ranges is outside of the scope of (and does not teach) the claimed invention. Indeed, the present claims recite that the curing temperature is higher than the preheating temperature and that this temperature is at least 375°F.

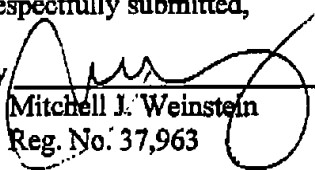
The tenor of the present invention is that the article is first preheated and then the coating material is applied to the preheated article. The preheating temperature is, as claimed, less than the cross-linking temperature. Thus, curing cannot occur. It is only after the coating is applied to the article that the fully coated article is heated to cure the coating material.

In conclusion, applicant respectfully submits that claims 1-6 and 8-21 are in condition for allowance, and such action is earnestly submitted. Applicant believes that there is no fee due in connection with the present Amendment C. If, however, there is a fee due, Applicant authorizes the Commissioner to charge any underpayment, or credit any overpayment, to Deposit Account No. 23-0920. Should any petitions be necessary, applicant requests that this paper constitute any such necessary petition.

If Examiner Parker believes that there are issues that could be addressed by a telephone interview, he is invited to contact the undersigned at the below listed number.

Respectfully submitted,

By


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Dated: July 15, 2003
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